

Research Article

Metawriting: Empowering students to discover their knowledge of writing

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This qualitative study investigated the influence of Metawriting, or “writing about writing,” on fifth-grade students’ knowledge of writing and proficiency in composing informative essays. Using a Think-Talk-Write model, students explored their existing writing knowledge and experiences, analyzed their essays using genre-specific tools, and discussed their insights with peers. Students kept a Metawriting journal to document their self-assessment experiences, capture their observations and create writing goals. An analysis of the data revealed that the iterative process of the Think-Talk-Write model to teach Metawriting guides students through well-defined stages, enhancing their metacognitive declarative, procedural, and conditional knowledge of writing. By thinking, talking, and writing about their writing, students became more aware of who they are in the writing process, enhanced their knowledge of informative text structures, and exhibited increased self-regulatory skills.

Keywords: Writing instruction; Metawriting; Knowledge of writing; Writing conferences; Self-reflection in writing; Self-regulation; Self-efficacy

Article History: Submitted 26 August 2023; Revised 11 December 2023; Published online 17 December 2023

1. Introduction

Over the past few decades, extensive research on writing instruction has identified effective practices that support students’ knowledge and performance in writing (Finlayson & McCrudden, 2020; Graham et al., 2012; Kim et al., 2021; Ray et al., 2023). Findings from these studies consistently demonstrate that teaching students about different writing genres and strategies to plan, revise and edit texts improves their writing performance (Koster et al., 2015; Sun et al., 2022). One approach found effective in teaching writing strategies is the Self-Regulated Strategy Development [SRSD] model. Using a six-step process, students learn how to manage the process of writing (e.g., prewrite, draft, revise/edit, and publish) and learn to develop self-regulatory skills to understand the functions and limitations of writing strategies (Harris et al., 2006). The effectiveness of the SRSD model has been demonstrated across various student populations, including students with learning disabilities (FitzPatrick & McKeown, 2021), striving writers (McKeown et al., 2019), and students from low and high socioeconomic backgrounds (Salas et al., 2021). This model has also shown success in teaching persuasive essays (Harris et al., 2019) and argumentative writing across content areas (Peltier et al., 2021), and in developing self-advocacy skills for English language learners (Jozwik & Cuenca-Carlino, 2020; Ray et al., 2023).

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How to cite: Mejia, M. (2024). Metawriting: Empowering students to discover their knowledge of writing. *Journal of Pedagogical Research*, 8(1), 83-105. <https://doi.org/10.33902/JPR.202423833>

Teaching students how to self-assess their writing has also been found to positively impact students' self-efficacy in writing performance (Andrade et al., 2008; Chung et al., 2021). Andrade and colleagues (2008) taught elementary students how to generate criteria from a mentor essay and use a rubric to self-assess their writing. They found that when students knew how to evaluate their essays against a scoring guide, their self-efficacy in writing increased. Chung and colleagues (2021) investigated the effects of teaching a sequence of self-assessment strategies, including planning, goal setting, and reflection during the revision process of a writing task. Sixth-grade students engaged in a self-assessment revision process of an on-demand analytical essay by using a planner and reflecting on their writing, planning, goal setting, post-revision reflection, and self-assessment. This sequence of instruction resulted in significant gains in students' writing outcomes and positively influenced their self-efficacy in writing.

Collaborating with others, such as teachers, peers, and writing communities, is another crucial instructional practice that significantly contributes to students' writing development (De Smedt et al., 2020; Graham, 2023; Phillippakos, 2017; Sarikaya & Yılar, 2021). Phillippakos (2017) investigated the impact of teaching fourth-grade students how to engage in written peer review and peer feedback for persuasive writing tasks. Using evaluation criteria, students in one group reviewed peer essays and provided written feedback, while the control group reviewed peers' essays without providing feedback. Results from the study revealed that teaching students how to provide peer review and peer feedback improved their knowledge of persuasive writing, use of effective writing strategies, and the quality of their writing improved. De Smedt and colleagues (2020) also investigated peer-assisted writing in upper elementary grades. In this study, students collaborated with a partner to plan, draft, and revise their essays. The results revealed that collaboration throughout each stage of the writing process played a significant role in enhancing students' writing performance and increasing self-efficacy and motivation for writing.

While these studies identify effective practices for enhancing students' writing knowledge and performance, the writing data reported from the Nation's Report Card reveals a disparity in students' writing proficiency (National Center for Education Statistics, 2015). This nationwide assessment measures students' writing knowledge, organizational skills, and use of specific language to create texts that "persuade, explain, and convey an experience, real or imagined" (Driscoll et al., 2010, p.6). The most recent available data reveals that 74% of 8th-grade and 73% of 12th-grade students scored at or below the "basic" level in writing proficiency. These results highlight the vital need to investigate the impact of Metawriting instruction, which prepares students to reflect upon and discuss their knowledge of and understanding of writing, particularly the processes and strategies involved in composing informative texts. This becomes particularly important for upper elementary grade students as this is the time in their educational journey when they learn how to carry out more complex writing processes of planning, composing, and revising texts (McCutchen, 2006).

2. Theoretical Framework: Metacognition

This study uses Metacognition as the theoretical framework for investigation because it has been found to be a key element in effective writing instruction (Graham & Harris, 2017; Harris et al., 2009; Negretti, 2012; Rodríguez-Málaga et al., 2021; Schunk & Zimmerman, 2007). Metacognition refers to being aware of and knowing how to use strategies and resources to monitor one's understanding of a situation (Flavel, 1979). It comprises two key elements: 1) metacognitive awareness and 2) metacognitive monitoring and regulation (Dunlosky & Metcalfe, 2009). Metacognitive awareness refers to three types of knowledge: declarative, procedural, and conditional, whereas metacognitive monitoring pertains to the ability to judge one's performance (Schraw, 2009). Declarative knowledge refers to a writer's understanding of themselves as writers, their affect toward writing, their self-efficacy in their writing abilities, their understanding of the requirements of a writing task and their knowledge of writing strategies. Procedural knowledge is highly influenced and shaped by declarative knowledge. Also known as the "know-how"

knowledge, procedural knowledge entails understanding the necessary steps essential to accomplish a writing task. Conditional knowledge is the result of declarative and procedural knowledge combined. Those who possess conditional knowledge can evaluate a writing task, determining its purpose and target audience; identify the conditions necessary for producing effective writing, and know how to choose, employ, and assess the effectiveness of specific writing strategies and skills in order to produce well-crafted written texts (Harris et al., 2009; Zimmerman & Risemberg, 1997).

Several research studies document the role metacognition plays in writing development. Colognesi and colleagues (2020), for example, found that when students learn how to (1) reflect upon to describe the skills and strategies they use to write texts; (2) explain the process they use to complete a draft, and 3) evaluate their final written product, results in an increase in their knowledge of writing. Gorzelsky and colleagues (2016) also uncovered that providing the space and time for students to explain their writing choices when creating a text promotes metacognitive thinking and analysis. As a result of this teaching practice, students' writing development, knowledge and skills were enhanced. Taczak (2015) discovered that teaching students metacognitive strategies such as reflecting on the process and strategies used to create texts cultivates self-awareness of writing skills and enhances overall writing knowledge.

However, there are differing perspectives regarding the understanding and implementation of metacognition in writing instruction. Hacker and colleagues (2009) argue that writing is applied metacognition because writing employs metacognition at every phase of the process; more recently, Taczak and Robertson (2017) have identified that educators do not have a clear understanding of metacognition often tending to interchange it with the term "reflection," and not always teaching metacognitive strategies to students. Harris and colleagues (2009) explain that "without careful development of the [declarative, procedural and conditional] knowledge, success with writing is unlikely" (p. 133). Consequently, an important direction in research is to "focus on more effective strategies to be implemented in classrooms to promote metacognitive skills" (Braund & Soleas, 2019, p. 106). This study directly responds to this research call by investigating the impact of Metawriting instruction, a practice that teaches students to reflect upon and write about their knowledge of and process of writing. This study aims to examine how Metawriting supports students' knowledge of writing and enhances their overall writing metacognitive skills.

3. The Role of Metawriting in Writing Instruction

Metawriting was introduced by Joyce (2002) to teach college students in a remedial writing course the appropriate use of grammar conventions and writing mechanics. During Metawriting instruction, students analyzed their essays for writing mistakes, comparing their errors with examples of correct usage from three different sources of text. Students' metawriting included an explanation of how the selected conventions they analyzed were used incorrectly. They explained what was "wrong" and provided instructions on how to fix these grammatical errors. Joyce's study revealed that Metawriting enabled students to intellectualize the functions of grammar and punctuation rules, helping them develop a deep understanding of the complexity of these writing conventions, thus resulting in a heightened awareness of their writing process and an improvement in their overall writing proficiency.

Lange (2008) also recognized the influence of Metawriting instruction on college students' knowledge of writing. In his work, Lange emphasizes Metawriting's benefit of developing the writer's inner dialogue and argues this is a critical practice for overcoming writing challenges such as writer's block. Lange asserts that by using examples from metafictional literature, which refers to written commentaries and descriptions authors use to describe the process of creating texts, students learn how authors write about the obstacles they encounter that prevent them from starting their writing. This form of Metawriting assists the author in (1) identifying and naming the problem to understand its source, which leads to (2) analyzing the problem, which makes the process of looking for solutions visible. This conscious task enables the author to resolve the

problem experienced and reduces frustration. Lange further contends that Metawriting fosters the development of an “inner critic” who encourages the author to analyze the problems they encounter in the writing process while also searching for solutions.

Expanding upon these findings, Barbeiro (2011) conducted the first investigation into the impact of Metawriting in a K-12 setting. He selected 294 third, fourth, and sixth grade students to learn about (1) the processes students used before, during, and after composing a written text; and (2) their overall disposition toward writing, e.g., whether they liked to write. Students responded to a prompt: “What happens when I write?” reflecting on their writing processes and their feelings about writing. Barbeiro found that Metawriting helps students understand their relationship with writing. Third-grade students’ essays revealed that writing was used to document their learning, their relationship with writing was to complete a school assignment for their teachers. Fourth and sixth-grade students reported that writing helped them learn, think, and reason. Their relationship with writing was very different from that of third-grade students. For them, writing was a tool to explore their thinking and overall learning. Barbeiro also discovered that when students write about *how* a written text is created and *examine* the strategies they use to develop ideas, the writing task becomes demystified, and writing is more attainable.

4. The Present Study

Metawriting studies in K-12 settings are limited. While teaching students how to self-assess their writing is documented in the literature (Harris et al., 2006; McKeown et al., 2019; Salas et al., 2021), there is still a need to investigate the impact of combining writing about self-assessment, reflection, and writing. Therefore, this study adds to the literature by using the Think-Talk-Write model to teach fifth-grade students how to self-assess, reflect, and write about their writing. Thus, the purpose of this study was to examine how Metawriting helps students identify the strategies they use to create informational texts, recognize any writing challenges, and analyze how the process of writing impacts their overall knowledge of writing. The following research questions guided this study: (a) To what extent does the Think-Talk-Write model facilitate students’ self-awareness of their knowledge of writing? and (b) What effect does Metawriting have on students’ knowledge of writing informational texts?

4.1. Study Design and Methodology

This qualitative study used an inquiry approach through case studies to gather comprehensive, systematic, and in-depth information about a particular phenomenon of interest (Patton, 2002) within its natural setting (Merriam, 2009). Data on writing instruction was first collected through classroom observations and a teacher interview. Data on Metawriting instruction was collected using a Think-Talk-Write model of instruction composed of (a) a student Metawriting survey and mini-lessons on Metawriting; (b) students’ Metawriting journal reflection entries; (c) students’ reflective discussions and summarizing chats, and (d) the researcher’s notes.

To conduct the study, a teacher interview was used to learn about the teacher’s knowledge of writing instruction and the instructional approaches she used to teach writing. To gain insights into how informative writing was taught, classroom observations were conducted over a two-week period. Once students completed their final expository essays, Metawriting instruction was implemented using a Think-Talk-Write model. Metawriting instruction began with a Metawriting survey (See Appendix A) that students completed. The survey questions underwent field testing with three separate groups of upper-level elementary students. Student responses and feedback led to the removal of two questions and the revision of three others. Students’ preferences also led to adding question #8 allowing students to include and describe their dislikes in writing. Subsequent iterations of field testing led to revising two questions, and an additional question was added that asks students to include anything else they would like to share about their experiences with writing. The final survey consists of 10 open-ended questions serving a two-fold purpose: to encourage students to think about and reflect upon their experiences and knowledge of writing

and to analyze their responses assessing their declarative, procedural, and conditional metacognitive knowledge of writing.

Next, using a *Reflecting Upon and Assessing My Writing* organizer (see Appendix B) students were taught how to self-assess informative essays. Once students completed their self-assessment and analysis, they engaged in reflective discussions guided by a set of questions and wrote their newfound insights from their analysis and peer discussions in their Metawriting journals. Summarizing chats at the end of each lesson allowed students to reflect on their learning and provided a space to ask questions to clarify any misunderstandings. Triangulation of this data helped evaluate the impact of the Metawriting instruction on students' knowledge of writing.

4.1.2. The setting and participants

This study was conducted in a Title I public elementary school in Los Angeles, California during the Spring school term. Student enrollment was 689, with 97.3% of students identifying as Latinx, 1.4 % as White, and .5% as African American and Asian students, respectively. Additionally, 80% of students were eligible for free and/or reduced lunch, and 56% were classified as English Language Learners. The study focused on a 5th-grade classroom, and the teacher Ms. Klein (pseudonym) was purposefully selected using predetermined criteria. The selection process used purposeful sampling, which involves a deliberative selection of participants who have the most knowledge about the phenomenon of interest (Merriam, 2009). The criteria for this study required having five or more years of teaching experience in elementary school writing instruction. These criteria align with research on teacher expertise, which suggests that 6,500 hours, or roughly five years of practice, is necessary to establish mastery in a particular field (Berliner, 1994). Ms. Klein, who had 13 years of teaching experience in fifth grade, was considered an expert in writing instruction. She held a master's degree in education, certifications in National Board and English Language Learner instruction and was a doctoral candidate in a Teacher Education program. Ms. Klein also exhibited a high level of confidence and self-efficacy in teaching writing.

After obtaining parental consent and student assent, six students (3 boys, and 3 girls) participated in the study. Five students identified as Latinx, while one identified as White. Daniel (pseudonyms used for all students) attended the school starting in kindergarten, was an English Only speaker, and was identified as High-Ability. The remaining students enrolled in the school in fourth grade. Jayla and Melissa were also English Only speakers. Jayla was identified as Gifted. Thomas and Marc identified as Initially Fluent English Proficient [IFEP] in kindergarten, indicating their fluent oral and written proficiency in English. Marc was identified as Gifted. Amy was an English Only speaker and had an Individualized Education Plan [IEP] to address mental processing skills such as memory, reasoning, perception, and critical thinking. Amy received weekly support from a Resource Specialist Program [RSP] since the first grade. Demographic information for each student is presented in Table 1.

4.2. Procedures

4.2.1. Observation of writing instruction

Writing instruction occurred daily during a dedicated 45-50-minute writing block period. Ms. Klein employed a combination of instructional approaches, including the Writers Workshop model (consisting of mini lessons, independent writing, conferences, and sharing); Thinking Maps (graphic organizers used to define, classify, compare, and contrast, find cause and effect, etc.); and the Six-Traits of Writing model. This model teaches six key elements of writing: ideas, organization, voice, word choice, sentence fluency, conventions, and presentation. Writing instruction began with a mini lesson that introduced the purpose of information texts, e.g., to inform the reader. Ms. Klein reviewed a text exemplifying features of the writing genre such as facts, definitions, concrete details, and examples. A class discussion was conducted for students to

Table 1
The demographics of the recruited study participants (pseudonyms are used)

| Participant | Gender | Ethnicity | Age | Language Proficiency | Attended the School Since | High-Ability/Gifted | IEP |
|-------------|--------|-----------|-----|----------------------|---------------------------|---------------------|--|
| Daniel | M | White | 10 | English | Kindergarten | High-Ability | |
| Jayla | F | Latinx | 10 | English | Grade 4 | Gifted | |
| Amy | F | Latinx | 11 | English | Grade 4 | | Memory, reasoning, perception, critical thinking |
| Thomas | M | Latinx | 10 | IFEP in Kindergarten | Grade 4 | | |
| Marc | M | Latinx | 10 | IFEP in Kindergarten | Grade 4 | Gifted | |
| Melissa | F | Latinx | 10 | English | Grade 4 | | |

Note. M = male; F = female; IFEP = Initially Fluent English Proficient; IEP = Individualized Education Plan

discuss the features of the writing genre and to ask any clarifying questions. Students used a Writing Notebook to keep notes from the mini lessons, e.g., elements of informative texts, writing strategies; topic sentences; transition words; etc.

The teacher directed students to write about organisms and habitats--a topic the class had studied during their Science instructional block. Students reviewed their notes and selected a topic to research. The following day, the class visited the computer lab where the teacher provided a mini lesson on how to conduct research. Students searched specific internet sites to learn more about their selected topic, printed a selection of web pages, created notes, and engaged in peer conversations to discuss their findings. On day three, students used their Writing Notebooks to create graphic organizers to organize their research notes and to create a plan to begin their first drafts. During the writing block, students had the choice to either write independently or collaborate with a peer or meet with the teacher for additional assistance. To compose their essays, students used a Writing Journal. Most of the students wrote independently. On day four, students met with a peer or with the teacher to share their initial drafts. As needed, the teacher met with students individually or in small groups to re-teach any concepts or provide additional support. At the end of each writing class, a class discussion took place where students had the choice to share their works in progress, and ask any clarifying questions about the assignment, the writing genre or about writing in general. Each day, Ms. Klein began writing class with a quick check-in to assess students' progress in the writing process (research, prewrite, draft, revise, edit) and to inquire if anyone needed a conference meeting.

4.2.2. Metawriting instruction: Teaching students to think, talk, and write about their writing

Metawriting instruction took place in the students' classroom during the designated writing block. For a week, I held daily sessions, lasting 40-45 minutes, with the students who opted to participate in the study. My instruction took place in the back of the classroom while the teacher held writing conferences with the remainder of the class. I introduced the term Metawriting and defined it as "thinking, talking, and writing about writing" and created a mini poster displaying this definition to use as a scaffold when needed. I explained that while writers create texts and talk about their written texts with others, they seldom write or talk about their writing knowledge. I explained that Metawriting helps writers learn more about themselves as writers and about the craft of writing. After this mini-lesson, I introduced the Metawriting survey to encourage students to think, talk, and write about their perceptions of writing and their experiences with writing. First, I read the survey questions out loud, asking students to think about how they feel about writing and what they do when they write before writing down their responses. Next, I provided students with the choice to complete the survey independently or with a partner. They opted to work in pairs and conducted interviews with each other. Afterwards, each student wrote down their answers to complete the survey.

The second day began with a summarizing chat, an integral part of Metawriting instruction. During these chats, students were asked: "What did you learn yesterday? Share with the group your experience with the lesson and the work you completed and were prompted to provide more details with the statement "Tell us more about that." These summarizing chats functioned as checks for understanding, answering any questions students may have and clarifying any misunderstandings that arose. In these chats, students affirmed identifying as writers, and discussed their writing experiences, processes, and how they felt about writing.

I followed this discussion with a mini lesson on essay analysis. I explained that writers need to think about their writing in multiple ways. I read a sample informational essay out loud and described what the text was about. I explained that this was one type of thinking about writing - e.g., describing what the text is about. I then chunked the essay into sections and explained that writers also need to think about whether all features of a genre are included in an essay. Using the *Reflecting Upon and Assessing My Writing* organizer (see Appendix B), a genre-specific tool, I modeled how to read sections of the text and use the organizer to analyze the content of my essay,

posing questions such as: *What is my topic about? Do I make that clear in my introduction?* After reading each section, I asked these questions out loud and marked the “YES” category if my essay included the feature and marked the “NO” category if it did not. When I identified a feature missing, I included notes to remind me where in the essay I needed to include or revise a feature. After completing my essay analysis, I reviewed the completed organizer to identify which genre features were included and which were missing from my essay. Modeling how to use my notes, I named and described the revisions I had to make, and I identified where I needed help to make these changes to the essay.

After this lesson, students were directed to analyze their informative essay using the organizer. As students worked, I observed, took field notes, or when needed met with a student to help them analyze their writing or to explain a feature of the genre. Each student worked at their own pace with some choosing to analyze their essays independently while others opted to work in pairs. Following the analysis, I explained that writers talk about their writing after having analyzed their essays. I described this talk as a means to organize and clarify our thinking about writing. Students engaged in a reflective conversation to share their findings, discuss the features they understood well, identify challenges they faced, and find any patterns amongst their collective analysis.

Following the reflective conversation, I shared that all the thinking and talking we had done needed to be summarized with an action plan. I used the guiding questions of the organizer: 1) *What have you learned about your writing after analyzing your essay?* 2) *How can you use what you have learned to improve your writing?* and 3) *What additional support do you need?* to summarize the new insights I gained about my writing and to determine where I needed additional help. I concluded this lesson by stating that all my new learning had to be captured in my Metawriting journal. I highlighted that writers also write about their writing to catalog their knowledge of writing and document their progression in understanding writing. These questions prompted students to think about their writing and exchange ideas with a partner before writing about their findings (e.g., writing about their writing). These conversations also reinforced why writers need to think, talk, and write about their writing to understand what they know about writing. Students were then instructed to write in their Metawriting journals. Starting from the second day of instruction, a summarizing chat was conducted at the beginning of each day to check for understanding and answer any lingering questions from the previous day. For study’s duration, Metawriting instruction followed the structure outlined in Table 2.

4.3. Data Analysis

Using Creswell’s (2012) six-step model was used to organize and analyze the data collected for this study. An Excel spreadsheet was used to organize students’ responses to the Metawriting survey. This data was read and analyzed to identify any emerging patterns among students’ responses. Students’ reflective discussions and summarizing chats were transcribed and organized by date and lesson objective. Field notes of students’ responses, comments, behaviors, and actions were also read and labeled with a summary of the information found. After these initial codes were created, the data were reviewed once again to obtain a general sense of all the information collected. Data analysis continued with a review of the research questions: (a) To what extent does the Think-Talk-Write model facilitate students’ self-awareness of their knowledge of writing? And (b) What effect does Metawriting have on students’ knowledge of writing informational texts? All collected data were compared to determine any recurring patterns, trends, and additional categories. The researcher’s notes, comments, and reactions to the initial codes were compared across categories to determine any connections. Codes were then refined to create themes, which were analyzed one more time to identify any other relationships. Finally, the data was translated into a storyline to represent the findings.

Table 2
The sequence of Metawriting instruction

| <i>Sequence of Instruction</i> | <i>Purpose</i> | <i>Tools Used</i> |
|-------------------------------------|---|--|
| Summarizing Chat | A group conversation was conducted at the beginning of each lesson to gauge students' understanding of the previous day's topics. | Summarizing Questions: <ol style="list-style-type: none"> 1. What did you learn yesterday? 2. Share with the group your experience with the lesson and the work you completed. 3. Tell us more about that. |
| Self-assessment of a Selected Essay | Students analyzed an essay to assess their knowledge of writing an informative text. | Reflecting Upon and Assessing My Writing Organizer |
| Reflective Conversations | Students worked in pairs to share their findings from their essay analysis and discussed their newfound understanding of their writing. | Guiding Questions from the Reflecting Upon and Assessing My Writing Organizer <ol style="list-style-type: none"> 1. What have you learned about your writing after analyzing your essay? 2. How can you use what you have learned to improve your writing? 3. What additional support do you need? |
| Metawriting Journal Entry | Students used their Metawriting journal to write about their writing, documenting their reflection and new learning on their writing. | Metawriting Journal |

5. Findings

Metawriting instruction began with the Metawriting survey which guided students to think about their writing, talk about their writing experiences with their peers, and write about their reflections of their writing. The survey questions were specifically designed to assess students' declarative, procedural and conditional knowledge of writing (Harris et al., 2009). Declarative knowledge refers to the writer's understanding of themselves, their writing abilities, the writing task, and writing strategies, as well as their self-efficacy and motivation to write. Procedural knowledge pertains to the writer's understanding of the necessary steps to complete a writing task; this "how-to" knowledge is directly influenced by declarative knowledge. Conditional knowledge is shaped by both declarative and procedural knowledge and involves the writer's ability to evaluate a writing task, select and use specific strategies to create texts, and identify conducive conditions for writing (Harris et al., 2009; Zimmerman & Risemberg, 1997). An analysis of the survey data answered the first research question for this study: To what extent does the Think-Talk-Write model facilitate students' self-awareness of their knowledge of writing? Students' responses revealed proficient levels of declarative and procedural knowledge of writing. All students self-identified as writers and were confident and assured in their writing skills and abilities. They also knew how to make use of the process of writing. They knew how to navigate each step involved in creating texts. Importantly, the students' responses also unveiled an interesting finding. They had a beginning level of conditional knowledge of writing. While students were confident in their writing and knew each step of the writing process, they primarily relied on external guidance for evaluating their work.

5.1. Students Self-identified as Writers

An analysis of students' responses to survey questions 1 ("How do you feel about writing?"), 2 ("How do you feel about yourself as a writer?") and 6 ("What do you write about when you are not in school?"), along with data from their reflective conversations, revealed a high level of declarative knowledge of writing.

Students viewed the practice of writing as a means to express their feelings, be creative, and communicate ideas with others. All but one student expressed feelings of happiness about writing and enjoyed writing stories about themselves and their families. Two students expressed writing at home and wrote creative stories for "fun." Data from the reflective conversations held at the end of each day/lesson, revealed that students enjoyed writing about their everyday activities, expressing their feelings about a situation/event through writing, retelling events about their preferred hobbies, and sharing stories about their families. These responses demonstrate students' self-identity as writers, with three students sharing their aspirations of becoming professional writers in the future. Amy was one of these students. She wanted to write about overcoming some of the challenges and difficult situations she experienced in school. In response to question 2, "How do you feel about yourself as a writer?" she stated: *"I feel like I could make a good career out of it [writing]. Also, people would find it interesting to learn about my childhood."* During the reflective conversations, Amy elaborated on the occasional struggle and confusion she experienced in school, but she believed that her experience would inspire other students to not give up when facing challenges or difficult situations. Thomas' response to this question: *"I feel like I can be inspirational or help people go through hard times"* conveyed the same ambition. During the group's reflective conversations, Thomas' aspiration to write self-help books when he grew up was motivated by the lessons he learned from books his parents and teachers read to him. He wanted to author books about his own experiences that would be beneficial to others.

An analysis of question 8 ("Is there something that you don't like about writing?") uncovered that all students had a positive feeling toward writing. For all but one student, their dislike of writing had to do with their hands hurting from writing too much. Daniel's response did not include physical discomfort with writing. Instead, his statement: *"I don't really like to write. I don't really like to brainstorm ideas"* reveals an awareness of his experience with this procedural aspect of

the writing process. His dislike for generating ideas and organizing his thoughts before creating a text could reference a challenge or difficulty he experiences in the initial stages of writing. Thus, indicating limited experience with specific strategies to generate and organize ideas before writing. However, in his response to question 2, "How do you feel about yourself as a writer?" Daniel exudes confidence, positive self-reflection, and a focus on his strengths and writing ability. He wrote: "I feel [that] as a writer I can give a very good piece of informational writing, narrative, and opinion pieces." During the reflective conversations, Daniel stated he preferred being assigned a topic, discussing it in class with the teacher, and then writing about it. This statement reveals Daniel's comfort in structured guidance and support to initiate writing tasks, which indicates a specific aspect of the writing process where he may benefit from additional instruction and use of specific strategies.

Students' survey responses and reflective conversations uncovered they had high levels of declarative knowledge. All the students were very self-aware and had a strong and positive self-perception as writers. They all valued writing and recognized this practice as a powerful tool for communication. Several students aspired to become professional writers supporting others through their personal life experiences. They viewed their personal written narratives as a positive contribution that could foster empathy and inspire others, especially during challenging times. These beliefs capture the students' high levels of self-efficacy in their writing. They were motivated to write and took pride in their writing achievements, indicating that the act of writing is a rewarding and fulfilling experience. This data, also pinpointed to a specific area of need for Daniel – knowledge of specific strategies to synthesize previous knowledge about a topic, generate ideas, recognize the connections between these ideas, and organize these thoughts to create a first draft.

5.2. Students had a Proficient Understanding of the Process of Writing

An analysis of students' responses to the survey questions 3 ("What do you do when you write?"), 5 ("What do you write about when you are in school?"), and 9 ("What strategies do you use when you write?") also revealed the students had a strong level of procedural knowledge of writing.

Students had experience in creating narratives, research reports, opinion pieces, and creative stories. Their response revealed a thorough knowledge of the writing process, e.g., "taking notes on what [they] already knew" about a topic, "talking to a partner and making a tree map organizer" to "organize ideas" as part of their prewriting practices. Students also expressed "asking different people for feedback" after completing the first draft, and "even asking more people, different people for feedback" as their revising and editing process and before publishing their work. All students articulated the distinct purpose of each stage and described how they utilized various strategies to craft written texts. Students also explained their individual writing processes, with some writing independently at first and, when needed, alternated between working with a partner or a small group to edit and revise their work. Students also met with their teacher once a semi-final draft was created before it was published. Most students liked publishing their essays by typing their work, while others preferred to write a final draft in their Writing Journals.

An examination of the responses to question 9 ("What strategies do you use when you write?") revealed that all students knew how to use various writing strategies, including the use of graphic organizers, creating outlines, and conducting research using other texts. Marc's in-depth response to this question exemplifies his level of procedural knowledge in writing. In his response, he described the specific approaches and strategies he uses to write. He explained: "I look for keywords then I underline them to help me understand the problem better. When I write I think about what I am writing [and] I also kinda mumble the words [I am writing] to see if it makes sense. I also like to use speech bubbles to share what else I am thinking." In the follow-up reflective conversations, Marc explained that underlining keywords in a writing prompt helped him identify the essential information he needed to determine how to begin his first draft. He stated: "This is how I prepare to write." This comment and the visual aid of underlining key words provides Marc with focus, helping him effectively understand the writing task. This writing behavior highlights Marc's awareness of the

specific strategies he needs to use before commencing a written task. His approach of mumbling his words as he writes is a deliberate strategy that helps assess the flow and coherence of his sentences, ensuring that his writing makes sense. Furthermore, his preference for using speech bubbles demonstrates his knowledge of the specific writing conventions, writing style, and craft he uses to portray his characters' thoughts, feelings, as well as any additional ideas he wants to include in his writing.

These responses illustrate that these students possessed a strong level of procedural knowledge of the writing process. They described their process in each phase of writing, explaining how they created notes, used graphic organizers to organize their thinking, and engaged with peers to discuss, ask for, and provide feedback. Importantly, the reflective conversations revealed a notable trend among the students' writing process: they heavily relied on revising their writing with someone else, either a peer or with their teacher. All students acknowledged the significance of an outside source, e.g., enlisting the help of their peers and Ms. Klein to improve their writing. This finding was corroborated with an analysis of question 4, "How do you know that a piece of writing is good?" This analysis revealed that students also relied on a rubric provided by Ms. Klein to determine whether their writing was "good." If their writing met the criteria, then they knew they had done a good job. If it did not, then they would meet with Ms. Klein or a peer to strategize revisions for their texts. This finding also showed a notable trend in all students' writing process: their dependence on others to assess the quality of their writing and assist in planning their revisions.

By engaging in the process of thinking, talking, and writing about their experiences with writing, students gained a deeper level of self-awareness regarding knowledge of writing. An analysis of the data revealed that the survey encouraged students to reflect on their writing experiences, perceptions about writing, and areas where they felt confident or when they encountered challenges. The reflective conversations provided students a space to share and evaluate their experiences with others, refine their thoughts and gain deeper insights into their own perspectives and attitudes toward writing. The compiled data highlights that these students had a high level of declarative and procedural knowledge of writing. Students exhibited a strong self-perception as writers and a high level of confidence in their ability to effectively navigate the writing process. However, the data also uncovered two key findings, providing essential insights into the students' overall knowledge of writing. First, specific areas of need were uncovered, specifically for one student, Daniel, indicating his need for additional instruction on strategies to independently initiate a writing task effectively. Second, all students were found to have a beginning level conditional knowledge; they all relied heavily on others, e.g., peers and their teacher, to assess and evaluate their written work.

To investigate the impact of Metawriting instruction on students' knowledge of writing, students' Metawriting journal entries, and field notes from reflective conversations and summarizing chats were analyzed. This analysis revealed the ways Metawriting enhanced students' conditional knowledge of writing. By incorporating targeted instruction to help students assess their knowledge of writing, providing access to genre-specific resources, and structuring time to think, talk, and write about writing, Metawriting empowered students to a) develop a deeper understanding of their knowledge of writing, and b) identify their specific writing needs, ultimately guiding them to create meaningful writing goals. This data addressed the second research question for this study: What effect does Metawriting have on students' knowledge of writing informational texts?

5.3. Students Developed a Deeper Understanding of their Knowledge of Writing

An analysis of students' Metawriting journal entries, comments made during reflective conversations, and summarizing chats revealed that the Think-Talk-Write model significantly contributed in apprenticing students to think critically about their knowledge of writing. Personal and group reflections about their informative texts and analysis of their writing led students to

develop a more nuanced understanding of their writing knowledge. As students shared their essay analysis and reflected upon their learning, they began to collectively evaluate their writing's efficacy in relation to the genre's features. Marc initiated this type of collaborative and reflective discussion by sharing his observations about the impact of thinking and talking about his writing. He stated: *"I now have a better understanding of what is needed to make an informational text."* Marc proceeded to share his observations about informational features missing in his essay and specified the improvements he needed to make to improve his writing. He included: *"My topic is sort of clear, I do not include that many facts, and that makes it a little confusing. I think using headers will help me organize it better."* Marc's candid reflection prompted the rest of the students to also share their essay analysis using a similar format. Daniel, for example, stated that this process led him to learn that he did not have a *"good conclusion to explain my topic."* He continued to explain that in his analysis, his conclusion was *"one sentence"* which made his concluding remarks *"very simple."* Importantly, Daniel also included his plans to fix his conclusion by *"changing it and write why it is important for everyone to know about the deep sea."*

These two comments generated reflective conversations that helped the rest of the students identify when their essays did not stay on topic, why they needed to revise their conclusions, and how to organize their ideas using definitions and headers. In their conversations, students observed that they included facts from their research about their topics, but only Thomas and Jayla used definitions to explain their topics in more detail to their readers. Thomas stated: *"I learned that I include some definitions and that will help my reader,"* and Jayla added that she also *"define[d] what coral reefs are and provide[d] some examples."* This realization prompted the rest of the students to recognize the significance of incorporating definitions in their writing. Furthermore, as the conversation continued the students also discovered a common pattern in their essays – none of them had used quotation marks and illustrations, and only two used headings to organize their writing. The rich exchange of ideas led students to openly share their association of quotation marks and illustrations with narrative texts and their unawareness that these elements could also be used in informative writing. Additionally, these same students had not considered using headings to organize their ideas.

As students shared their newly found knowledge about their writing, they also explained how they would revise their essays using the tools provided. An example of this is Melissa's comment: *"The checklist helps me learn that I need to revise because there are some things I did not include in my essay like other examples or draw some illustrations."* Here, Melissa refers to the *Reflecting Upon and Assessing My Writing* organizer provided for students to analyze their texts as a resource to revise the areas she found needed addressing. Using this organizer to revise their work was a common theme that emerged from the students' reflective conversations and summarizing chats. They all found the tool to be helpful in guiding the revision process of writing. Several of them also found the organizer to be a resource during the prewriting phase of their writing.

These findings revealed that the iterative process of thinking, analyzing, discussing, and sharing their findings nurtured a thoughtful community among students in which their conditional knowledge of writing informative texts was enhanced. Their comments reflected their critical assessment of their writing, which uncovered new insights and refined understandings regarding text structure, organization, coherence, topic focus, and the use of specific conventions of the writing genre. This finding indicates that after participating in a carefully designed approach – such as thinking about their writing by analyzing their texts and talking about their analysis using guiding questions – students could identify when and how to use specific genre requirements to improve their writing. Students were no longer reliant on a conference meeting with a peer or the teacher to determine whether their writing was ready for publication. Instead, this process equipped them with the knowledge to identify precise areas for revision in their essays. Additionally, these conversations also uncovered a need for additional instruction. Students' comments revealed a need for further guidance on the proper usage of quotations, illustrations, and headings in informative writing.

5.4. Students Identified their Writing Needs and Created Specific Writing Goals

The following day, during the summarizing chat, Marc openly shared his journal entry from his Metawriting journal and revealed his struggles conducting research. These comments initiated a chain reaction, prompting other students to candidly share what they find difficult in writing. In his Metawriting journal entry, Thomas wrote about the areas of his essay that needed revision, but upon hearing Marc's comments, he stated that he found the research aspect of the genre were frustrating and confusing. He often spent most of this time searching for the topic on the computer and printing as many pages from the internet before the class had to leave the computer lab. He felt overwhelmed during the prewriting phase due to not knowing how to organize all the information he had gathered, and this led to being unsure where to begin. Talking about their writing prompted Thomas and Marc to uncover specific gaps in their understanding of planning for, preparing and conducting research for writing informational texts. The impact of these discussions was evident as these students, who initially expressed confidence in each phase of the writing process, now felt empowered to share their uncertainties about conducting and organizing their research. Marc's frustration and Thomas' feeling of being overwhelmed revealed their shared challenge with the research phase, indicating a lack of understanding in successfully carrying out this task, which ultimately hindered the rest of their writing process.

Upon hearing these comments, the rest of the students began to share the approaches they used to conduct and organize their research. Jayla, Melissa, and Amy expressed liking the aspect of conducting research because they were "*able to learn more about a topic*" and although their topics were assigned by the teacher, they felt that their learning was extended. This sentiment was also expressed by Daniel. Jayla and Melissa shared with Thomas their notes and the graphic organizers they used before conducting research, explaining how doing this before searching online helped them focus their research. These conversations resulted in Thomas's Metawriting journal entry showing new insights on how to conduct research. He wrote:

Now I know how to think about what I write and how to make changes. Talking about my essay...helped me learn to organize the information I have. I will also use a Tree Map and other organizers to prepare better and not get confused.

Thomas' Metawriting entry shows how he recognizes the relationship between effective planning strategies and the research process, which contribute to successful writing. He sets a goal to use specific organizers to refine his ideas before conducting research, highlighting his conditional knowledge of selecting, evaluating, and using strategies to help his writing. This portrayal displays Thomas's newfound awareness and his views about Metawriting - a tool that supports the decision-making process he employs when approaching a writing task. In a similar vein, Marc was observed using his notes from the *Reflecting Upon and Assessing My Writing* organizer to revise his essay. This is an example of how conditional knowledge of writing can manifest beyond explicit goal setting. Although Marc did not write about his writing goals in his Metawriting journal, his subsequent use of the organizer provides a practical application of his conditional knowledge. This behavior further signifies his capacity to revise his writing to align with the genre's expectations, highlighting his grasp of effective self-assessment and his willingness to leverage specific tools to improve his writing. This finding emphasizes how Metawriting prompts students to think critically about their writing practices, leading to a more profound understanding of their knowledge of writing expository texts.

Another finding that emerged from students' Metawriting journals was their ability to identify their writing needs to create specific writing goals. For instance, in his Metawriting journal, Daniel writes:

My essay on the deep sea does not have all the features of an informative essay. I forgot to include definitions to explain my topic and I did not use quotations. I did use headers...and I have all the facts I found. My goal now is to use the organizer to use definitions and quotations to explain about the deep sea. I also have to include a conclusion to explain why we need to know about the deep sea

and the environment. I can do it! Now, I know what I need to do to revise this essay and make it complete.

Daniel's Metawriting reveals his ability to recognize the features of informative writing present in his essay and those missing. Through Metawriting, he reflects on his writing process and explains using the organizer is a strategy he can use to help revise his text. This Metawriting entry reveals that Daniel understands the specific strategies he needs to use to address the missing features in his writing, and that he also recognizes how these features contribute to enhancing the overall effectiveness and quality of his writing, thus indicating an enhanced level of conditional knowledge of writing. Additionally, Daniel's reflections bring into focus a positive attitude toward the revision process and a strong sense of self-efficacy. His inclusion of a self-affirmative statement underscores his self-efficacy in his writing abilities. This, in turn, serves as an indicator of his views on Metawriting – a tool to uncover his writing knowledge and help him achieve his writing goals. This once again spotlights his recognition of tools and strategies he can employ when he writes, thereby accentuating his conditional knowledge of writing.

This pattern was evident in the Metawriting journal entries of other students as well. Daniel, Jayla, Thomas, Amy, and Melissa wrote about how to revise their essays using the insights they gained from their analysis and reflective conversations. An exemplary Metawriting journal entry that highlighted this level of reflection was written by Amy. Amy had an IEP since Kindergarten to address an identified mental processing, memory, perception, and critical thinking needs, and received small group instruction by a Resource Specialist. Amy shared the following reflections on her essay about ecosystems:

I now noticed that I dont have definitions or use good linking words. I didn't [write] a thesis statement. I need to revise it to make my topic clear and include the other things missing. I think this [the organizer] can be helpful when I plan my research. I know it will help me focus when I write because sometimes I write too fast, it can be nonsense.

Amy's Metawriting entry reveals her conditional knowledge of writing. Through this introspective process, she demonstrates an ability to critically evaluate her writing and pinpoint the missing features like definitions, linking words, and a thesis statement. This understanding reveals her awareness of how these genre-specific features enhance the quality of her essay. She also writes about using tools to revise her text, indicating her capability to assess and select specific resources to support her writing goals. Furthermore, Amy's Metawriting offers an additional insight into her self-awareness regarding moments where she loses focus and experiences cognitive overload, particularly when trying to process too much information too quickly. This introspection reveals a deep understanding of the factors that affect her writing performance. Amy also acknowledges the deliberate sequence of the Think-Talk-Write model in Metawriting instruction as means to maintain a balanced pace and sustain focus, her recognition of Metawriting and the *Reflecting Upon and Assessing My Writing* organizer as external resources to self-monitor and self-regulate her writing process. Amy's insightful reflections serve as a testament to her conditional knowledge. Her ability to reflect upon her writing, discern effective strategies, and skillfully leverage resources highlights her capacity to evaluate and elevate the quality of her written work.

Throughout these conversations, Marc emerged as a distinct voice. Like the rest of the students, Marc explained that the analysis of his informational essay led him to discover that most genre-specific features were present in his writing. However, he found that his introduction and topic were "not that good " because they were not clearly stated or and his ideas were not well-developed. Although he had included some "okay definitions and details," he realized that some information was not well organized and recognized that using headers would help him organize his thoughts. While Marc explained his analysis in detail during the reflective conversations, his Metawriting journal unveils a candid emotional response and reservation about his experience writing informational texts. He wrote:

I do not like informative [writing] that much. One reason is that I don't get to choose my topic. Another reason is that when I don't find [my] topic while I'm doing research is that I get frustrated. Last but not least, I don't like doing informational [writing], because I can't share [the] feelings I have about something else.

In his Metawriting entry, Marc exhibits an awareness of the circumstances that impact his motivation and enthusiasm to write informative texts, which reveals a characteristic of conditional knowledge of writing. He writes about his dislikes and challenges with informative writing, displaying his recognition of what is required of this genre and the constraints that he is navigating. He also acknowledges the environmental conditions that impact his level of engagement, e.g., not being able to select his own topic for writing. This awareness gains additional significance as he expresses his frustration while researching a teacher-assigned-topic, indicating an area that could benefit from targeted instructional support.

These findings reveal that preparing students to write about their writing via the Think-Talk-Write model of Metawriting instruction helped students enhance their conditional knowledge of writing. By actively thinking, talking, and writing about their writing, students not only learned more about creating informative texts, recognizing the genre-specific features present and missing from their essays, but they also gained an awareness of the factors that influenced their motivation and enthusiasm for the writing task. This process cultivated critical thought, helping students to recognize what they know about writing and guiding them to assessing practical ways of improve their written texts and experiences when they write.

6. Discussion and Conclusion

This study assessed how the Think-Talk-Write model of Metawriting instruction facilitates students' self-awareness of their writing knowledge. The study also sought to explore the effect of Metawriting on students' knowledge of writing informational texts and metacognitive skills. An analysis of the collected data revealed that using the Think-Talk-Write model effectively enhances students' awareness of their writing knowledge, performance, and beliefs about themselves as writers. In particular, the structured sequence of each component within this model was crucial in guiding students in exploring and assessing their current knowledge and experiences with writing.

Using the Metawriting survey at the onset of Metawriting instruction placed students at the center, encouraging them to recognize themselves as active participants in the writing process. The survey questions and the structure of the reflective discussions allowed students to acknowledge their writing strengths and needs, recognize their relationship with writing, and through this process, develop a more defined writing identity. Explaining how they use writing, describing their experiences with writing, and sharing their future intentions and goals regarding writing, helped students define their identity as writers. This experience resulted in an enhanced declarative knowledge of writing. Students' conversations prominently displayed their self-confidence in their writing skills and abilities, often describing themselves as good writers. This finding is of importance because previous studies that use writing surveys often ask students to report the types of writing they do in school (Scherff & Piazza, 2005), assess students' knowledge about writing (Gillespie et al., 2013), or use multiple choice and closed questions to assess students' perceptions about writing (Gadd et al., 2019). The Metawriting survey and its application is a departure from these types of tools. Instead, the Metawriting survey and reflective conversations facilitate a deeper introspection, aiming to help students understand the personal, emotional, and cognitive aspects of writing. These two elements of Metawriting instruction combined is a more holistic perspective that encourages students to engage in deep self-reflection about their knowledge of writing.

The *Reflecting Upon and Assessing My Writing* organizer served as an essential tool, prompting students to understand the purpose and function of each element of informative writing. The organizer helped students assess the coherence of their texts by considering the clarity of their

topic, development of ideas, and the organization of information into groups and logical order. The organizer also helped students find the presence or absence of facts, definitions, and concrete details and to review their use of transitional words, phrases, and clauses to ensure a smooth progression of ideas within their essays. This independent and structured analysis prompted students to identify how well they know and use the necessary steps to complete an informative essay. As highlighted by Colognesi and colleagues (2020), evaluating the processes to complete a written text and assessing the quality of the final written product is a critical approach to help students identify the strategies they could use to revise their writing and to determine the effectiveness of the strategies they find useful and would use again in future writing tasks. Therefore, the *Reflecting Upon and Assessing My Writing* organizer significantly contributed to students becoming more aware of their procedural knowledge of writing informative texts.

Furthermore, the follow up reflective conversations created the space for students to share findings from their analysis, nurturing both individual and collective procedural knowledge of the writing genre. For example, the structure of the organizer guided students in assessing whether features of informational writing such as definitions, examples, quotations and illustrations were present in their essays, providing a deeper understanding of the writing genre. Students also acknowledged the importance of using headers to present their research in a more organized manner, with one student reflecting on including the purpose of his essay as part of his conclusion, thus, underscoring the impact of the reflective discussions on students' grasp of key elements of informative writing. Combining the organizer and the structure of the reflective conversations also influenced students' attitude toward writing. Their interest toward the revision process, including the planned steps and the tools they wanted to use to revise their texts, emphasized their engagement and commitment to applying their newfound knowledge to improve their texts. Graham (2018) describes that understanding the purposes and text features of different genres, having a familiarity with the processes for composing and revising texts, and being aware of tools for writing, are examples of metacognitive knowledge that contribute to effective writing outcomes. Hence, the tandem design of the organizer with the reflective discussions significantly contributed to students' enhanced understanding of informative text structures, refining their procedural knowledge of this writing genre.

Participating in these Metawriting experiences enrolled students in a specialized writing community that forged a collective commitment to explore and improve writing through metacognitive practices. Graham (2018) asserts that writing is "inherently as social activity, situated within a specific context" (p. 259). Within this sociocognitive environment, students became motivated to openly discuss their writing analysis, aiming to learn more about their individual processes and explore ways these can be improved. As this specialized community developed, students embraced vulnerability regarding their writing knowledge and experiences, creating a space where they acknowledged, valued, and respected each other's perspectives and insights (Graham, 2018). This supportive community gave direction for students to identify similarities in their writing approaches and scrutinize the layers of creating informative texts. This allowed students to become more comfortable analyzing their own thinking and learning processes, leading them to make more strategic writing decisions. This finding is consistent with research that underscores the positive influence of a writing community and supportive peer-assisted writing (De Smedt et al., 2020; Graham & Harris, 2017; Harris et al., 2006) while underscoring the added benefits of a specialized writing community grounded in Metawriting practices.

Graham (2018) states that "writing is simultaneously shaped by the community in which it takes place and the cognitive capabilities and resources of community members who create it." (p. 272). The Metawriting community students created was a nurturing space where they found support as they shared their frustrations and challenges with various aspects of writing. It fostered an environment that developed a new sense of communal empathy for writing. In this space, students actively listened to one another. They asked questions, thought deeply about writing,

moving away from the idea of completing a writing task to reshaping who they are as writers. As a result, students gained more confidence in their knowledge of the process of writing and in their self-efficacy as writers (Graham et al., 2015; Schunk & Zimmerman, 2007). This active engagement in Metawriting nurtured a reflective culture and collaborative community, allowing students to experience writing as a dynamic and interwoven process rather than a linear sequence of events.

The careful design and interplay of the Think-Talk-Write instructional approach also established a foundation, preparing students to successfully initiate their Metawriting experience. This method systematically led students through a series of well-defined steps that cultivated and refined each of the three metacognitive knowledge types: declarative, procedural, and conditional. Each element of this model developed students' metacognitive awareness as they critically considered their knowledge of writing and creation of informative texts, guiding them to assess their essays' purpose and consider the social aspect of their writing-how effectively their texts conveyed meaning and provided information to an audience. This finding is in line with previous studies on the influence of metacognitive awareness on writing knowledge and performance (Graham & Harris, 2017; Harris et al., 2009; Negretti, 2012; Rodríguez-Málaga et al., 2021). The alignment between previous research findings and the outcomes of the Think-Talk-Write employed in this study became evident in students' Metawriting journal entries. Students' self-regulation of their writing became apparent as they approached the task of writing about their writing with a heightened awareness of their writing knowledge, skills, and abilities. In their Metawriting journal entries, they went beyond a summary of their self-assessment of their essays. Instead, they delved into describing the steps they needed to take to enhance the quality of their work, referring to the organizer as a valuable tool for revision. This not only showed their proficiency in selecting resources aligned with their writing goals but also displayed their self-confidence and efficacy in applying their conditional knowledge of writing.

This study proposes that integrating Metawriting into writing instruction supports the development of students' knowledge of writing, which is a necessary element in effective writing instruction. The results suggest that the Think-Talk-Write model stands to be a pedagogical approach that brings promise, equipping students with self-awareness, writing knowledge and skills to take ownership of who they are as writers. This observation aligns with scholarship that emphasizes that students' development of academic writing is tied to the understanding of writing (Graham & Harris, 2017; Harris et al., 2009). As students develop a proficient understanding of the intricacies of writing and what is required to create written texts, they can develop self-regulatory skills and become confident in their writing capabilities (Negretti, 2012; Wilson & Wen, 2022). Since students' metacognitive writing knowledge has been associated with better writing performance (Olinghouse & Graham, 2009; Schunk & Zimmerman, 2007) and writing instruction that develops students' knowledge of writing has been found to improve their overall informative writing performance (Graham & Harris, 2017; Harris et al., 2009; Hoogeveen & van Gelderen, 2018; Olinghouse et al., 2015), it becomes imperative for educators to guide students in developing their knowledge of writing. Thereby reinforcing the role of Metawriting, specifically the explicit nature of the Think-Talk-Write model, as an effective pedagogical approach in writing instruction. Overall, this study not only highlights the value of Metawriting, but it also underscores its potential to enhance students' experiences with writing instruction (Barbeiro, 2011; Joyce, 2002) and increase their knowledge of writing.

7. Limitations of the Study and Future Directions for Research

While the findings of this study are promising, this study has some limitations. First, the sample size is limited due to the small number of parents and students who agreed to take part in the study. Second, the students in this study wrote daily. This aspect of the students' writing experience contributed to their thinking, talking with peers, and writing about their writing. Therefore, the generalizability of the results is limited. Other studies of the Think-Talk-Write model of Metawriting instruction, using a larger sample size and including students who have less

exposure to regular writing or those with various proficiency levels in writing, are recommended. Additionally, investigating the long-term effects of Metawriting is necessary to identify how students' writing performance evolves over time.

Notwithstanding these limitations, the Think-Talk-Write model of Metawriting instruction provides essential findings, particularly nurturing students' metacognitive skills, helping them become self-aware writers. These findings merit replication on a larger scale and over a longer time.

Declaration of interest: No conflict of interest is declared by the author.

Ethics declaration: Author declared that the study was approved by University of Southern California, The University Park Institutional Review Board (UPIRB), on 06.01.2016 with the study ID: UP-16-00356.

Funding: No funding source is reported for this study.

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Appendix A. Metawriting Survey

Name: _____ Date: _____

Instructions:

Read the questions below and think about your experiences when you write and what you know about writing. You can think about any type of writing that you do in school, at home, for fun, and/or with friends. Include everything you know about writing to answer these questions. There is no right or wrong answer and this will not be graded. This survey is meant to help you think about what you know and your experiences with writing.

1. How do you feel about writing?
2. How do you feel about yourself as a writer?
3. What do you do when you write?
4. How do you know that a piece of writing is good?
5. What do you write about when you are in school?
6. Do you write about when you are not in school?
7. If you answered YES to question # 6, then please explain what you write about when you are not in school. Leave blank if your answer to question # 6 was NO.
8. Is there something that you don't like about writing?
9. What strategies do you use when you write?
10. Please include anything else you would like to share about your experiences writing and what you know about writing.

Appendix B. Metawriting: Reflecting Upon and Assessing My Informative Writing

Name: _____ Date: _____

Instructions:

Step 1: Select an informative essay you have completed. Read your essay to find where you have included each feature outlined in the table below. Once you find a feature, check the YES box. If you do not find a feature in your essay, check the NO box, and make a note to help you remember where you need to make this edit in your essay.

| Type of Writing: Informative - examine a topic and convey ideas and information clearly. | | | |
|--|-----|----|---|
| Features | Yes | No | Where in your essay can you include this information? |
| Is the topic of my essay clearly stated in my introduction? | | | |
| Do I group related information in logical order? | | | |
| Do I use headers to organize information? | | | |
| Is my topic developed with: | | | |
| • Facts? | | | |
| • Definitions? | | | |
| • Concrete details? | | | |
| • Quotations? | | | |
| • Other information? | | | |
| • Examples related to my topic? | | | |
| • Illustrations? | | | |
| Are my ideas linked across categories of information using words, phrases, and clauses? | | | |
| Do I use specific language to inform about or explain my topic? | | | |
| Is a concluding statement or explanation included? | | | |

Step 2: After you determine whether your written work includes the features of this genre, answer the questions below to help you determine your next steps.

1. What have you learned from analyzing your essay?
2. How can you use what you have learned to improve your writing?
3. What additional support do you need?